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# Prevalence of chlamydial infection in promiscuous women

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SUMMARY *Chlamydia trachomatis* was isolated from the cervix of 18 (33%) of 55 women who admitted to two or more casual sexual contacts in contrast to one (3%) of 32 women who admitted to one casual contact in the preceding month. The chlamydial infections did not produce characteristic clinical features. Since promiscuous women are at high risk of acquiring chlamydial infection, they should be regarded as a priority group when resources for chlamydial isolation are limited.

## Introduction

There is convincing evidence that *Chlamydia trachomatis* is a pathogen in both the male and female genital tracts.[1] It is also clear that chlamydial infections are not associated with distinctive symptoms or signs which would enable a clinician to make an accurate diagnosis without recourse to laboratory help.[2-5] Access to a diagnostic chlamydial isolation service is not widely available, however, since the techniques are labour intensive and expensive. In the absence of such a service most clinicians now treat women who are contacts of men with non-gonococcal urethritis (NGU) with antibiotics active against chlamydiae, since it has been shown that about one third of such women harbour chlamydiae in the cervix.[3-8] Furthermore, a similar proportion of women who have gonorrhoea or who are contacts of men with gonorrhoea are chlamydia-positive, and it has been proposed[9 10] that treatment regimens for the management of patients with proved or suspected gonorrhoea should incorporate antichlamydial agents.

Most workers[2 3 7] have shown that women who do not have a history of contact with a man who has urethritis have a low prevalence of chlamydial infection. Some women attending sexually transmitted diseases (STD) clinics, however, do not have a regular consort to inform them of the development of urethritis. These women include prostitutes attending regularly for routine examination and women who are seeking reassurance after a casual encounter outside their stable relationship. Since the prevalence of chlamydial infection in such groups is unknown, we have undertaken a study in which women presenting for examination who admitted contact with untraceable male partner(s) were investigated.

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## PATIENTS AND METHODS

Women attending an STD clinic were included in the study if they had had sexual intercourse in the preceding 28 days with one or more men whom they could not identify and providing they had not subsequently had intercourse with a known partner. Women who had taken antibiotics in the preceding 28 days were excluded as were those who were known to be contacts of men with gonorrhoea or NGU. Consent to undertake this study was given by the ethics committee.

A routine clinical examination was performed and a specimen taken from the cervix with a polyester sponge swab[11] for isolation of chlamydiae. The swab was expressed in sucrose-phosphate medium (2SP) containing 10% fetal calf serum and the medium was then snap-frozen in liquid nitrogen for transport to the laboratory. The specimens were tested for *C trachomatis* in cycloheximide-treated McCoy cell cultures as described.[12]

## Results

Eighty-seven women were studied and chlamydiae were isolated from 19 (22%) of them. Nine of 29

(31%) prostitutes were chlamydia-positive in contrast to 10 of 58 (17%) other women admitting one or more casual contacts. The chlamydial isolation rates in relation to the number of admitted contacts are shown in the table. Chlamydiae were isolated from 18 of 55 (33%) women who had two or more contacts compared with one of 32 (3%) women who had only one contact.

Fifty-eight women had symptoms and 12 (21%) were chlamydia-positive as were seven of the 29 (24%) asymptomatic women. Fifty-three women had abnormal physical signs and 13 (25%) were chlamydia-positive as were six of the 34 (18%) women in whom physical examination was normal.

TABLE *Isolation of Chlamydia trachomatis from the cervix of women in relation to number of admitted sexual contacts in the preceding month*

| | *Patients from whom chlamydiae were isolated* | |
|---|---|---|
| *No of contacts* | *No (%) positive* | *No tested* |
| 1 | 1 (3) | 32 |
| 2-9 | 11 (32) | 34 |
| ⩾10 | 7 (33) | 21 |
| Total | 19 (22) | 87 |

## Discussion

The results of this study indicate that promiscuous women, regarded here as those who have sexual intercourse with unknown male partners, are at considerable risk of harbouring chlamydiae. Furthermore, in agreement with the findings of other workers[2-5 7] the presence of symptoms or abnormal physical signs does not distinguish between women who are or who are not infected with chlamydiae. The risk of infection with chlamydiae is minimal for those women admitting only one casual contact and is similar to that of other women attending an STD clinic without a history of contact with NGU or gonorrhoea. The risk increases dramatically, however, when two or more contacts are admitted and is similar to that of women who are known contacts of men with urethritis. Since it is considered reasonable to treat such contacts on epidemiological grounds, both to prevent reinfection of their partner and to prevent serious sequelae—for example, salpingitis, it might be argued that sexual contact with more than one unidentified man is an indication for antichlamydial treatment. This would lead to a situation in which prostitutes attending a clinic weekly for examination could find themselves taking antibiotics indefinitely. Since this would be expensive and unacceptable to the patient and the microbiologist a chlamydial isolation service would seem to be essential to determine which of these high risk patients needs treatment. When resources are limited, priority should be given to specimens obtained from these women.

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